

Shifting asthma treatment paradigm

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The treatment goal of asthma management is to obtain and maintain control of asthma, which implies both reduction of symptoms and reduction of future risk such as exacerbations. However, in many patients in real life, asthma is uncontrolled despite pharmacological treatment. Clinical outcome of uncontrolled asthma is grave with high risk of exacerbation, hospitalization and death. In addition, uncontrolled asthma is often associated with poor quality of life and frequent side effects of medication. In Korea, despite an increase in the use of asthma controllers such as inhaled corticosteroids (ICS) and long-acting beta2 agonists (LABA), many patients still remains uncontrolled or partly controlled. Moreover, short-acting beta agonists (SABA) are widely used instead of ICS for control of asthma symptoms. Thus, poor management of asthma in general suggests that something is wrong with the strategy of pharmacologic treatment of asthma both in stable and worsening stage of asthma. While both ICS and bronchodilators (both LABA and SABA) are highly effective in controlling asthma symptoms and preventing exacerbations, what is important in the management of asthma would be how to use both anti-inflammatory agents and bronchodilators at each step of asthma therapy and both stable and worsening stage.

Current guidelines of asthma suggest the use of SABA at treatment step 1 for symptom control without the use of ICS encouraging patients' autonomy. However, from step 2 to step 5, use of ICS and/or LABA is strongly recommended discouraging use of SABA only. This conflicting strategy in the use of ICS (\pm LABA) and SABA can cause confusion how to deal with worsening symptoms of asthma in many patients. The paradox in use of controllers and SABA in terms of patients' autonomy could be overcome by the introduction of early use of ICS at step 1 and use of ICS/SABA (or rapid onset LABA) combination as reliever. This approach could offer benefit in reducing asthma exacerbation by offering both anti-inflammatory and bronchodilation effects as required. Since maintenance and reliever therapy of ICS/formoterol, rapid onset LABA) has shown effectiveness in reduction of exacerbations without increasing total dose of ICS, use of ICS/formoterol in step 1 and 2 as reliever might be the effective strategy in overcoming the paradoxes of asthma management.